#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003259 Address: 333 Burma Road **Date Inspected:** 17-Jul-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Keng Chan **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

### **Summary of Items Observed:**

On this date, Caltrans Office of Structure Materials (OSM) Quality Assurance Inspector (QA) Raymond Lara was present at jobsite in Zhenhua Port Machinery Company facility on Changxing Island, China for the purpose of observing and monitoring the fabrication of the SAS Superstructure.

### Bay 1

Skin A South Tower Assembly

The Quality Assurance Inspector observed tack welding and fit up operations has been completed on skin A South Tower Assembly. The Quality Assurance Inspector observed ZPMC personnel in process of repairing tack welds by grinding.

The Quality Assurance Inspector observed ZPMC in process of performing thermal cutting on diaphragm plate P967A.

The Quality Assurance Inspector observed ZPMC in process of performing a survey on skin plate D South Tower Assembly.

#### Skin E South Tower Assembly

The Quality Assurance Inspector observed ZPMC welder 053673, utilizing the flux cored arc welding process on a weld repair discover during ultrasonic inspection on SSDI-SA173 A/K 20B. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification

## WELDING INSPECTION REPORT

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WPS-345-FCAW-1G(1F) Repair.

### Bay 2

Longitudinal Stiffener

The Quality Assurance Inspector observed ZPMC welder 053316, utilizing the flux cored arc welding process on a complete joint penetration in the flat position on longitudinal stiffener weld number ESDI-SA49 A/D 7B. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification WPS-B-T-2231-B-U3-F.

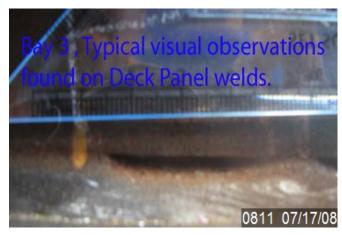
The Quality Assurance Inspector observed ZPMC welder 040775, utilizing the flux cored arc welding process on a complete joint penetration in the flat position on longitudinal stiffener weld number ESDI-SA49 A/D 8B. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification WPS-B-T-2231-B-U3-F.

The Quality Assurance Inspector observed ZMPC in process of performing thermal cutting operations on diaphragm plate SA238.

#### Bay 3

The Quality Assurance Inspector observed ZPMC grinding and performing flux core arc welding (FCAW) on visual weld repairs on Orthotropic Box Girders (OBG)DP-0830-001, DP-049-001, and DP-001-001.

The Quality Assurance Inspector performed a random initial visual observation on Orthotropic Box Girders (OBG)DP-407-001 and DP-245-001. The Quality Assurance Inspector observed several areas of underfill and undercut. ZPMC and American Bridge/Fluor Quality Control Inspector agreed with the visual observations found by the Quality Assurance Inspector. ZMPC Quality Control Inspector informed the Quality Assurance Inspector, he will contact the Quality Assurance Inspector when the repairs are complete.



#### **Summary of Conversations:**

No relevant conversations on this date.

# WELDING INSPECTION REPORT

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## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (707) 649-5453, who represents the Office of Structural Materials for your project.

Inspected By:	Lara, Raymond	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer